

REMARKS

Claims 1-11 are pending in the application. Claim 8 is cancelled herewith, thus obviating the rejection of this claim under 35 U.S.C. §112, second paragraph.

Applicants note that the subject matter of this invention was commonly owned at the time the invention was made, as evidenced by an assignment by all inventors of their rights in the invention to Bayer Aktiengesellschaft, recorded at Reel/Frame 012492/0051.

A new declaration of inventor Martin Melchior ("the second declaration") is submitted herewith under Rule 1.132. Note that a typographical error appears in the header on the first page of the declaration (the serial number should read "09/928,853" instead of "09/928,883").

Rejection Under 35 U.S.C. § 103(a)

Claims 1-11 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,126,393 ("Blum") in view of EP 0 159 117 B1 ("Hughes"). Applicants respectfully traverse this rejection.

Claim 1 of the present invention is directed to an aqueous coating composition prepared as a dispersion in which a urethane-modified polyol and a pyrazole-blocked polyisocyanate are mixed together prior to preparation of the aqueous dispersion.

The Office action maintains that Blum teaches a composition in which the polyurethane-modified resin, the crosslinker and optional emulsifier can be mixed in any order to make an aqueous dispersion, and points to column 7, lines 16-18 in support of this proposition. Applicants respectfully disagree with this characterization of the Blum reference.

First, the statement at column 7 indicates that ingredients (a), (b) and (c) can be mixed in any order. This sentence does not state that an aqueous dispersion can be created by mixing in any order. A careful reading of the description of preparation of (a), the polyurethane-modified resin, shows creation of an aqueous dispersion of the resin in the last or next to last step. At column 5, lines 44-47, the step of dispersing the resin is described. Following this step, the optional step of further

reducing the solvent content of the resin is described, so that the proper solids content of the resin dispersion is obtained. This description of resin preparation clearly shows that ingredient (a) is prepared as an aqueous dispersion prior to the addition of the other ingredients used to make the coating composition.

Additionally, a preponderance of evidence in the patent points to the creation of a polyurethane-modified resin as an aqueous dispersion prior to the addition of the crosslinker. All examples in the patent show preparation of an aqueous dispersion of the resin, prior to the addition of the other ingredients; not one example illustrates other types of dispersions, in which the crosslinker is added to the resin prior to the creation of an aqueous dispersion. Claim 9 shows addition of an emulsifier prior to the creation of the aqueous dispersion of the resin and the crosslinker; there is no indication that resin and crosslinker can be combined without the emulsifier prior to the creation of the dispersion (step III is not described as optional in the claim).

Finally, even if Blum is said to teach that the ingredients can be mixed in an aqueous dispersion in any order, which Applicants do not concede, Blum does not teach preparation of a stable aqueous dispersion using pyrazole-blocked polyisocyanates. Hughes is apparently cited to provide the missing teaching, but Hughes also does not teach such stable dispersions in which the polyurethane-modified polyol resin and pyrazole-blocked polyisocyanate are first mixed and then prepared as an aqueous dispersion. Thus, since neither reference provides the missing teaching, they cannot be combined to produce this result. Only with the hindsight provided by the present invention would one skilled in the art conclude that a stable dispersion could be achieved in the manner recited in Claim 1. Applicants respectfully submit that Claims 1-7 and 9-11 are not obvious in view of the cited references.

Applicants previously submitted a declaration by Dr. Martin Melchior (‘‘the first declaration’’) which clearly shows that it is not possible to obtain a stable dispersion based on polyisocyanates blocked with pyrazoles when the dispersions are prepared according to the teachings of Blum.

The first declaration of Dr. Melchior was rejected as not sufficiently broad in scope. Applicants submit herewith the second declaration of Dr. Melchior, with

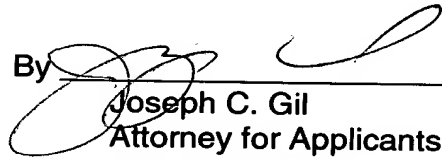
additional data showing aqueous dispersions based on aromatic polyisocyanates and aqueous dispersions based on linear aliphatic polyethers. Applicants submit that the inventive nature of the full scope of Claim 1 and the claims depending therefrom is established in view of the declarations and above remarks, and request withdrawal of the §103 rejection.

Conclusion

As all outstanding issues have been addressed, Applicants submit that Claims 1-7 and 9-11 are in condition for allowance; such action is respectfully requested at an early date.

Respectfully submitted,

By



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